

AN UPDATE ON THE BRITISH HOVERFLY LIST

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The BENHS issued a reprint of *British Hoverflies* in May 2000 because the book went out of print towards the end of 1999. This reprint of 500 copies includes, after the original text and plates, the *Second Supplement*, originally published separately in 1996, and a short concluding section titled *Update on the British List*, current to the beginning of the year 2000. Together, these enable all currently named British hoverflies to be identified, as well as giving references to many recent studies of hoverflies in Britain and abroad. Unfortunately, it was not possible to make changes to the original text of *British Hoverflies* for this reprint, although it is intended that the book will be issued as a revised edition when the current reprint is sold out, probably in about 2005. In order to make a summary of the most recent changes more widely available to those who have already bought *British Hoverflies* and the *Second Supplement*, it has been agreed to publish the *Update on the British List* in the Society's Journal.

INTRODUCTION

This *Update on the British List*, contains some additional notes covering a further four species that have been added to the British list since 1996 (two were added in 1996 after the *Second Supplement* went to press), and lists those names revised in accord with the latest checklist of Diptera of the British Isles (Chandler, 1998). The total hoverfly fauna for the British Isles now comprises 267 species with valid names.

When using *British Hoverflies*, you may find it helpful to mark up the original keys and text to incorporate the species splits and name changes that have taken place since 1983. Using the *Second Supplement* and the *Update on the British List* as the sources for updating your copy should make this a fairly straightforward process. The page numbers of *British Hoverflies*, where changes are needed to the keys and text, are cited in both the Supplement and Update to assist you.

When you submit records to the Hoverfly Recording Scheme, or if you publish records and observations, it is recommended that you use the names from the new checklist (Chandler, 1998). These names will be recognised as the new standard by journal editors and in databases.

Apart from promoting the study of hoverflies in Britain, the book has also sold well abroad. It has contributed to the renaissance of hoverfly studies in Europe where there has been a substantial increase in taxonomic and national revisions, including mapping in some countries.

As regards Britain, since 1996 there have been further county atlases published, notably for Somerset (Levy & Levy, 1998) and Surrey (Morris, 1998). In the year 2000, BRC plan to publish an atlas, which summarises knowledge of distribution in Great Britain, flight periods and ecology.

The UK Biodiversity Action Plan is based upon both Species Action Plans and Habitat Action Plans; the latter will enable many threatened species without Action Plans (including hoverflies) to be conserved. Already some hoverflies have Species Action Plans in progress, currently including *Blera fallax*, *Callicera spinolae*, *Chrysotoxum octomaculatum*, *Doros profuges*, *Eristalis cryptarum* and *Hammerschmidia ferruginea* (*Myolepta potens* has a species statement). The British

Entomological and Natural History Society is Lead Partner for *Chrysotoxian octomaculatum* and two other flies.

The outlook for continuing to increase our knowledge of hoverflies looks bright, whilst their value for raising the profile and understanding of insects in conservation circles is rising. Hopefully, the number of people recording, or at least in sympathy with, these 'friendly' insects will continue to grow.

CHANGES IN THE BRITISH CHECKLIST

Additions since the Second Supplement 1996

There have been four published additions.

Cheilosia psilophthalma Becker, 1894 (added by Speight, 1996): keys pp. 79 (group C, *C. mutabilis*) and 87 (group J, *C. praecox* now *C. urbana*)

This species is said to resemble *mutabilis* or *praecox*, which are relatively small narrow species. It occurs in early spring in Ireland and may have been overlooked in Britain. It is not easy to recognise but the following key may help.

1. Arista pubescent. Hind tarsi entirely dark. Tergites 2-4 with median black hairs (very short in female). Male frons thickly grey dusted. Female eye hairs very short or absent. [Claws bicoloured, basal half brownish yellow but apical half black]
 - Arista bare. Hind tarsi partly yellow. Tergites 2-4 with entirely greyish-white hairs. Male frons varies from dust along eye margin to entirely dusted. Female eye hairs long and distinct. [Claws dark or bicoloured] *mutabilis*
 - 2. Claws bicoloured. Male frons not swollen. Female third antennal segment one and a half times as long as deep. *urbana* (formerly *praecox*)
 - Claws dark or vaguely bicoloured. Male frons somewhat swollen. Female third antennal segment hardly longer than deep. *psilophthalma*

Helophilus affinis Wahlberg, 1844 (added by Stuke, 1996): key p. 98

Only known from a specimen taken in August 1982 on Fair Isle, a remote island between Orkney and Shetland. It may have been a migrant from Scandinavia. Tergites 2-4 have the hind margin entirely black, whereas other British species, except for *H. groenlandicus*, are yellow in this position. *H. affinis* has the front tarsi with at least the basal joints yellowish brown, while in *H. groenlandicus* the front tarsi are entirely black (Nielsen, 1997).

Platycheirus splendidus Rotheray, 1998 (added by Rotheray, 1998): key pp. 50 (males) and 53 (females)

This species new to science has been separated from *scutatus*. It is widespread in Britain but differs ecologically from *scutatus* in only having a spring flight period (mid April-May, extending to early July) and its larvae occur on trees (including aphid leaf galls on elm) as well as the usual herbaceous plants.

1. Front and mid legs extensively pale beneath. Dustless median stripe slightly broader than strong facial knob. Face at base with a strongly developed lip (side view). *splendidus*
- Front and mid legs black or mainly so beneath. Dustless median stripe not broader than smallish facial knob. Face at base with a scarcely developed lip (side view). *scutatus*

Syrphus rectus Osten Sacken, 1875 (added by Speight, 1999): key p. 72

Specimens have been found in Ireland and elsewhere in Europe that appear to correspond with North American *Syrphus rectus*. These are ascribed to a new

subspecies, *bretolensis* Goeldlin, 1996. However, the question remains as to whether European examples are merely variants of a common species.

The snag is that males of *rectus* are indistinguishable from *vitripennis* (the usual sex for reliably distinguishing species). The female of *rectus* has mainly yellow hind femora, thus resembling *ribesii*, but the complete covering of microtrichia on the wings equates with *vitripennis*. Thus it is possible that European *rectus* will prove to be a female form of *vitripennis* with an exceptional extent of yellow on the hind legs.

This throws into confusion many previous records within *Syrphus*. In practice, males will have to be identified according to earlier keys, which exclude *rectus*. For females, *ribesii*, with its mainly yellow hind femora, will need care; in the field one should be looking for the hint of *rectus* leg markings, a darkish stripe on the anterior surface of the hind femur about half way along, or more extensive darkening as a ring. The microtrichia pattern on the wings should be checked on all specimens to be sure, even those with plain *ribesii* hind legs. Records of *Syrphus* really need a note of the sex, and whether records are *sensu lato* (*s.l.* = in the broad sense, using earlier keys) or *sensu stricto* (*s.s.* = in the restricted or narrow sense, taking *rectus* into account).

— The reduced pattern of microtrichia in the second basal cell is illustrated in the keys (p. 72 of the main text); see also a note about rare specimens with spots on the abdomen (Second Supplement, p. 12). With great care and in good light, a $\times 20$ hand lens should reveal whether this wing cell is entirely or only about half covered in minute short spiky hairs (a microscope at $\times 20$ or $\times 40$ is ideal).

Female key using mitrotrichia (adapted from Speight, 1999).

- | | |
|---|--------------------|
| 1. Wings entirely covered in microtrichia, including the second basal cell. | 2 |
| — Wings with extensive areas bare of microtrichia, particularly within the second basal cell. | 3 |
| 2. Hind femora mainly black/dark brown (yellow apex). | <i>torvus</i> |
| — Hind femora mainly yellow (narrowly dark at base). | <i>ribesii</i> |
| 3. Hind femora mainly black/dark brown (only apex yellow). | <i>vitripennis</i> |
| — Hind femora mainly yellow (base narrowly dark, and often a median dark smudge at least anteriorly). | <i>rectus</i> |

A female *rectus* was captured in a Malaise trap in Glenveagh National Park, County Donagal, Ireland (Speight, 1999). The trap sample was for 12 August to 2 September 1999, sited at low altitude in unimproved, acid, *Molinia* grassland by a gentle slope with trees and scrub. Colin Plant exhibited a slightly teneral female *Syrphus* at the BENHS indoor meeting on 13 June 1990 (BENHS, 1991), which was initially thought to be an aberrant *Syrphus vitripennis*. However, following the publication of the paper by Speight (1999), it was re-examined and positively identified as *Syrphus rectus* subspecies *bretolensis*. It emerged during June 1987 from *Prunus spinosa* leaves that were being fed to Lepidoptera larvae; unfortunately the puparium could not be located and had probably been destroyed by the caterpillars. The leaves were collected in a garden at Bishop's Stortford, Hertfordshire a few days earlier. The few other European records come from a motorway lay-by in Germany, a maize field in Luxembourg and a Swiss alpine pass. Hence *rectus* is probably a very mobile species that could turn up practically anywhere.

Table 1. Changes in the British Hoverfly fauna since the *Second Supplement* 1996.

Old name	1983 page number	1996 page number	Current name
<i>Arctophila fulva</i>	107 , 113, 214 , 216, 234, Pl. 8 fig. 8		<i>Arctophila superbiens</i>
<i>Baccha obscuripennis</i>	47 , 116 , 231		<i>Baccha elongata</i> (amalgamated)
<i>Brachypalpoides lenta</i>	110 , 111 , 217, 219 , 225, 234, Pl. 9 fig. 14		<i>Brachypalpoides lentus</i>
<i>Cheilosia globulipes</i>	12, 87 , 164, 167 , 172, 232, Pl. 6 fig. 7		<i>Cheilosia urbana</i>
<i>Cheilosia honesta</i>	75 , 78 , 162, 165, 168 , 174, 175, 232	22	<i>Cheilosia lasiopa</i>
<i>Cheilosia intonsa</i>	77 , 78 , 81, 162, 165, 167, 169 , 232		<i>Cheilosia latifrons</i>
<i>Cheilosia praecox</i>	12, 23, 83, 84, 87 , 163, 164, 167, 172 , 233	8, 12, 13, 22	<i>Cheilosia urbana</i>
New in this update			<i>Cheilosia psilophthalma</i>
<i>Cheilosia laskai</i>	80 , 81 , 162, 163, 169 , 172, 173, 232		<i>Cheilosia ahenea</i>
<i>Cheilosia nasutula</i>	80 , 81 , 162, 164, 169, 170 , 171, 173, 233		<i>Cheilosia vicina</i>
<i>Chrysogaster chalybeata</i>	10, 90 , 91 , 181 , 233, Pl. 7 fig. 4		<i>Chrysogaster cemiteriorum</i>
<i>Chrysogaster hirtella</i>	10, 23, 30, 90 , 181 , 182, 183, 233, Pl. 7 fig. 3		<i>Melanogaster hirtella</i>
<i>Chrysogaster macquarti</i>	10, 23, 90 , 181, 182 , 233		<i>Melanogaster aerea</i>
<i>Dasysyrphus lunulatus</i>	44, 60 , 132 , 133, 231, Pl. 3 fig. 10	9, 10, 18	<i>Dasysyrphus pinastri</i>
<i>Doros conopseus</i>	61 , 135 , 232, Pl. 4 fig. 14	18	<i>Doros profuges</i>
<i>Epistrophe (Epistrophella) euchroma</i>	43, 61 , 137, 144, 232, Pl. 2 fig. 3		<i>Meligramma euchromum</i>
<i>Eristalis nemorum</i>	24, 98 , 193, 194, 195 , 233, Pl. 11 fig. 7	25	<i>Eristalis interruptus</i>
<i>Eristalis pratorum</i>		14, 25, 28	<i>Eristalis similis</i>
New in this update			<i>Helophilus affinis</i>
<i>Lejogaster splendida</i>	22, 23, 91 , 183 , 187, 188, 233, Pl. 7 fig. 7	24	<i>Lejogaster tarsata</i>

Old name	1983 page number	1996 page number	Current name
<i>Lejops vittata</i>	23, 99 , 197, 233, Pl. 12 fig. 5	3, 25	<i>Lejops vittatus</i>
<i>Megasyrphus annulipes</i>	22, 63 , 139, 155, 232, Pl. 3 fig. 18	19	<i>Eriozona erratica</i>
<i>Melangyna guttata</i>	63 , 143, 144, 232, Pl. 3 fig. 6	10	<i>Meligramma guttatum</i>
<i>Melangyna triangulifera</i>	29, 43, 63 , 144, 232, Pl. 3 fig. 5	10, 19	<i>Meligramma trianguliferum</i>
<i>Metasyphus</i>	43, 44, 57 , 66, 128, 145, 146, 150, 155, 156, 232, Pl. 2 figs 12-16	4, 11, 19, 28	<i>Eupeodes</i>
<i>Microdon eggeri</i>	23, 25, 29, 112 , 228, 235, Pl. 9 fig. 4		<i>Microdon analis</i>
<i>Myolepta luteola</i>	92 , 184, 233, Pl. 7 fig. 1	24	<i>Myolepta dubia</i>
<i>Neocnemodon</i>	19, 22, 103 , 104 , 106 , 126, 205, 206 , 208, 234, Pl. 5 fig. 11	15, 16, 26	<i>Heringia</i> (s-g. <i>Neocnemodon</i>)
<i>Orthonevra splendens</i>	23, 93 , 184, 188 , 233, Pl. 7 fig. 10		<i>Riponnensia splendens</i>
<i>Orthonevra</i> sp. A		13, 24	<i>Riponnensia splendens</i> (in- tersex)
<i>Parasyrphus lineolus</i>	69 , 149 , 150, 232	20	<i>Parasyrphus lineola</i>
<i>Pipizella varipes</i>	23, 28, 29, 106 , 107 , 212, 213, 234, Pl. 5 fig. 7		<i>Pipizella viduata</i>
New in this update			<i>Platycheirus splendidus</i>
<i>Pyrophaena granditarsa</i>	12, 53, 125 , 231, Pl. 1 fig. 4	17	<i>Platycheirus granditarsus</i>
<i>Pyrophaena rosarum</i>	53 , 125 , 205, 231, Pl. 1 fig. 5	17	<i>Platycheirus rosarum</i>
<i>Sphaerophoria menthastri</i>	24, 71 , 152, 153 , 154, 155, 232, Pl. 4 fig. 17	20, 21, 51, 52	<i>Sphaerophoria interrupta</i>
<i>Sphegina kimakowiczii</i>	94 , 188, 189, 233		<i>Sphegina elegans</i>
New in this update			<i>Syrphus rectus</i> ssp. <i>bretolensis</i>

Additions pending

Extra species occur in Britain, mainly stemming from studies by specialists outside Great Britain; descriptions of species new to science are pending. Splits are expected for instance in *Melanostoma mellinum*, *M. scalare*, *Platycheirus scutatus*, *Xanthogramma pedissequum* and *Cheilosia albitarsis*. Additionally some recently described European species may yet be found in Britain.

Recent published refinements on the separation of *Melanostoma mellinum* and *M. scalare* are not reliable. The following characters are among those that may assist recognition of segregates within potential species complexes.

- Dusting on frons
- Third antennal shape and colour pattern; relative length of arista
- Profile of face
- Thoracic postalar calli colour (rarely orange)
- Leg colour
- Shape of second tergite (length to width variable in both 'species')
- Colour of sternites

Checklist amendments

The recent revision of the British checklist of Diptera by Chandler (1998) assessed various potential changes in names of British hoverflies, including reappraisal of spellings. There is no universal consensus over some name changes. Unfortunately authors outside Britain have often given greatest priority to long forgotten early names, rather than maintain long-established usage. The British list has erred on the side of stability where there is no consensus, or where chaos is introduced by such circumstances as exchanging names. Hence the list is pragmatic, accepting a big step towards European consensus but stepping aside from changes which are still volatile (as in species name exchanges in *Chrysotoxum* and *Xanthogramma*; an application has been made to International Code of Zoological Nomenclature (ICZN) to fix the names used in *British Hoverflies*).

Table 1 is in alphabetical order, incorporating changes since the *Second Supplement* (1996) for the fauna of Britain and Ireland. All the name changes are included in Chandler (1998), except for the change of name for the species formerly known here as *Cheilosia praecox* to *Cheilosia urbana* (see Claussen and Speight, 1999). The page numbers for *British Hoverflies* (1983) and *Second Supplement* (1996) are derived from the respective indexes to assist with annotations. The names changed in the last column are emboldened for clarity and emphasis.

ACKNOWLEDGEMENT

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REFERENCES

- BENHS 1991. Minutes of the indoor meeting 13 June 1990. *British Journal of Entomology and Natural History* **4**: 48.
- Chandler, P. J. 1998. Checklists of Insects of the British Isles (New Series). Part 1: *Diptera Handbooks for the Identification of British Insects* **12**.

- Claussen, C. & Speight, M. C. D. 1999. On the identity of *Cheilosia ruralis* (Meigen, 1822) (Diptera, Syrphidae)—with a revision of its synonymies. *Volucella* **4**: 93–102.
- Levy, E. T., & Levy, D. A. 1998. *Somerset Hoverflies*. E. T. Levy & D. A. Levy.
- Morris, R. K. A. 1998. *Hoverflies of Surrey*. Surrey Wildlife Trust.
- Nielsen, T. R. 1997. The hoverfly genera *Anasimyia* Schiner, *Helophilus* Meigen, *Parhelophilus* Girschner and *Sericomyia* Meigen in Norway (Diptera, Syrphidae). *Fauna Norvegica Series B* **44**: 107–122.
- Rotheray, G. E. 1998. *Platycyberus splendidus* sp. n. from Britain formerly confused with *Platycyberus scutatus* (Diptera: Syrphidae). *Entomologists Gazette* **49**: 271–276.
- Speight, M. C. D. 1996. *Cheilosia psilophthalma* and *Odinia boletina*: insects new to Ireland and *Sapromyza sexpunctata* confirmed as an Irish species (Diptera: Syrphidae, Odiniidae & Lauxaniidae). *Irish Naturalists Journal* **25**: 178–182.
- Speight, M. C. D. 1999. *Syrphus rectus* Osten Sacken and its potential implications to the recording of *Syrphus* species. *Dipterists Digest* (Second Series) **6**: 85–91.
- Stubbs, A. E. 1998. *Cheilosia psilophthalma* added to the Irish list. Could it occur in Britain? *Hoverfly Newsletter* No. 25: 8–9.
- Stuke, J.-H. 1996. *Helophilus affinis* new to the British Isles (Diptera, Syrphidae). *Dipterists Digest* (Second Series) **3**: 45–46.

SHORT COMMUNICATION

A relict population of *Armadillidium pulchellum* (Zencker) (Isopoda: Armadillidiidae) in the heathlands of south-east England.—*A. pulchellum* is a small pill woodlouse which is mainly confined to open, long-established, semi-natural vegetation types developed on freely-draining soils—particularly heathlands and limestone pastures. It is a speciality of north-western Europe, with the greatest concentration of known sites in Britain, where its distribution is distinctly northern and western—from Cornwall to Galloway (Harding & Sutton, 1985).

It was first discovered in the south-east at Bramshill (SU76), north Hampshire, under loose bark on felled Scots pine (Hopkin, 1987). The site is a former sandy heath which has been converted to commercial conifer plantations. Single individuals were found on two occasions (S. P. Hopkin, pers. comm.). In 1998 a small colony of the woodlouse was found by myself, associated with a bank of open sandy heathland within the extensive self-sown pine stands on Black Down (SU921303), West Sussex. The woodlice were numerous in the litter beneath the heather bushes.

The more westerly heaths of the south-east support a number of such north-western species: the bug *Globiceps juniperi* Reuter is another example known from the relict heathlands of Black Down. These heaths appear to be transitional between the typical lowland dry sandy heaths of the south-east and the damper heaths of western coasts and hills.—K. N. A. ALEXANDER, The National Trust, 33 Sheep Street, Cirencester, Gloucestershire GL7 1RQ.

REFERENCES

- Harding, P. T. & Sutton, S. L. 1985. *Woodlice in Britain and Ireland—Distribution and Habitat*. Institute of Terrestrial Ecology, Huntingdon.
- Hopkin, S. P. 1987. Biogeography of Woodlice in Britain and Ireland. *Isopoda* **1**: 21–36.